



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,880	08/30/2001	Michael B. Ball	2769.6US (95-1118.5)	2391

24247 7590 10/07/2002

TRASK BRITT  
P.O. BOX 2550  
SALT LAKE CITY, UT 84110

EXAMINER

CHAMBLISS, ALONZO

ART UNIT	PAPER NUMBER
----------	--------------

2827

DATE MAILED: 10/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/943,880

Applicant(s)

BALL, MICHAEL B. *MC*

Examiner

Alonzo Chambliss

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 12-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

1. Pre-amendment A filed on 12/18/01 has been fully considered and made of record in Paper No. 3.

### ***Election/Restrictions***

2. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species of multi-level stack semiconductor substrate elements (i.e. wafer segments):

A1. a multi-level stack semiconductor substrate elements with the back side of the first semiconductor element facing the back side of the second semiconductor element that does not have a notch through the second semiconductor element (i.e. wafer segment);

A2. a multi-level stack semiconductor wafer segment with the back side of the first semiconductor wafer segment facing the circuitry side (i.e. the non back side) of the second semiconductor element that has a notch through the second semiconductor wafer segment (i.e. substrate element).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.

A telephone call was made to James R. Dunzan on 8/30/02 to request an oral election to the above restriction requirement, James R. Dunzan called the examiner on

9/4/02 and elected species A1 claims 1-11 without traverse. Claims 12-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected claims.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

#### ***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on 8/30/01 in Paper No. 2 was filed before the mailing date of the non-final rejection on 9/28/02. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

#### ***Drawings***

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "heat sink element between the first semiconductor substrate element and the said at least one second semiconductor substrate element in a back side to back side configuration" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Art Unit: 2827

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. In claim 1, the phrase "aligning vertically said first semiconductor substrate element and at least one second semiconductor substrate element" is vague and indefinite, since the aligning vertically of first semiconductor substrate element and at least one second semiconductor substrate element is confusing.

8. Claim 1 recites the limitation "integrated circuitry" in line 11. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 1 recites the limitation "at least one of the plurality of integrated circuits" in line 12. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 4 recites the limitation "at least one second semiconductor substrate element" in line 2. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 4 recites the limitation "element" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 2827

12. Claim 8 recites the limitation "conductors" in line 2. There is insufficient antecedent basis for this limitation in the claim.
13. Claim 9 recites the limitation "said substrate" in line 2. There is insufficient antecedent basis for this limitation in the claim.
14. Claim 11 recites the limitation "conductors" in line 2. There is insufficient antecedent basis for this limitation in the claim.

### ***Double Patenting***

15. In claim 1, of the instant application the phrase "aligning vertically said first semiconductor substrate element" on line 10 is interpreted as an additional method limitation. Therefore, a rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

16. Claims 1-11 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 2 of prior U.S. Patent No. 6,337,227. This is a double patenting rejection.

The prior art made of record and not relied upon is cited primarily to show the process of the instant invention.

### ***Conclusion***

17. Any inquiry concerning the communication or earlier communications from the

Application/Control Number: 09/943,880

Art Unit: 2827

examiner should be directed to Alonzo Chambliss whose telephone number is (703) 306-9143. The fax phone number for this Group is (703) 308-7722 or 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-7956.

AC/September 28, 2002

A handwritten signature in black ink, appearing to read 'Alonzo Chambliss', with a stylized, cursive script.

Alonzo Chambliss  
Examiner  
Art Unit 2827